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Probate Court—First Mondays in January, April, July and October, at Prescott.

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That the Prescott people wear better clothes, smoke better cigars, chew better tobacco, look handsomer and are happier than formerly? Ask Henderson & Co. my16.

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That Dry Goods are sold cheaper in Prescott than elsewhere this side of San Francisco? Enquire of my16 HENDERSON & CO.

FOR SALE—A FEW NO. 1 COWS
Apply to A. G. DUNN.
Prescott, June 12, 1868. tf.

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That the Prescott Bars sell better liquors than formerly? Ask HENDERSON & CO. my16.

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SILVER AND GOLD ORES worked in small lots up to a hundred pounds, by Chlorination and other methods.

San Francisco, Cal., June 27, 1868. jy18m6

Goods well Bought, Sell Them-

selves.—D. HENDERSON, the senior partner of the firm, is constantly employed in San Francisco selecting and buying goods by which means we are enabled to take advantage of the fluctuations in prices, and purchase our goods at lower rates than any other House in Central Arizona. my39

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Letter from Tucson.

[CORRESPONDENCE OF ARIZONA MINER.]

TUCSON, Arizona, July 31, 1868.

I arrived here on last Monday with the entire live freight in good condition. We stopped two days at J. W. Swilling's place on Salt river, and Mrs. Swilling came down here with us. Salt River Valley will be, before long, one of the best places in Arizona, to live in. Fact is I am "stuck" after it. To see cornstalks 18 feet high, well proportioned and ears to match made me think of old times when I hunted coons on the Wabash and shot them off the top ear of the cornstalk. When they get their big ditch out (which will be done this fall, probably) they will have the best agricultural district in Arizona by a long odds. They had corn almost ready to grind, and were planting more. Vegetables of all kinds were plenty. Salt river was up some, but we crossed without accident.

We laid over one day at Blue Water Station, 60 miles from here, waiting for company, as the Indians are very bad about this locality—much worse than about Prescott. In the last twenty days ten men have been killed in this county by Indians, and several others wounded. Among the former was Mr. Irwin, member of the Legislature, elect, and among the latter, Hon. J. W. Osborn, member of the Legislature from this county in 1866. So is after the boys here, with his sharp sticks, in earnest.

This little village is extremely dull at present. There is nothing doing here, not even in the principal business of the place, gambling. Reason—no money. All are "waiting for the Paymaster." The fact is there is nothing to support the town except the military, and should the Commanding Officer of this District remove headquarters to Sacaton, or any other place, the town would return to its original condition—a tumble-down old Spanish pueblo. Agriculture can never be carried on to a sufficient extent to keep up the town, for the want of water for irrigation, and there are no mines of consequence nearer than 50 or 60 miles. The only chance I see for a permanent future is the discovery of a bad-smelling spring of water somewhere near and then the natural proclivities of the inhabitants for the games of chance might in time make the town to the people of the Pacific Coast what Baden-Baden is to the people of Europe. Here Faro is emphatically king, which, taken in connection with the prevailing hue of the inhabitants, forces the query: are they of Egyptian origin?

Quite a number of houses have been erected since the capital was permanently established here. I am told that it created quite an excitement in the real estate market and that lots went up to very high figures, but like many other excitements it brought no permanent prosperity and many who invested at that time now wish they had their money back. It would take a dozen such capitals as the present capital of Arizona to make a town of any importance here.

His Excellency, Governor McCormick, still resides at this town. As he cannot draw his mileage before March 4th, it is unnecessary for him to go East just yet. Indeed it is just possible that His Excellency will not find it expedient to go at all as there is a suit now pending in the court that bids fair to upset the late election.

The matter will be decided by Judge Backus next Monday and I will let you know the result by the next mail. Speaking of his Excellency, the people here don't like him much better than the people of Yavapai. I have heard many of those who supported him at the last election apply to him names and abuse more bitter than any that ever appeared in the columns of the MINER, and two-thirds of them say that they voted for him because it was "Pima against Yavapai," and that they hated the man and his ways. Had it not been for the sectional feeling that he (the Governor) had been raising and nourishing for years, Rush would have beaten him in this town easy.

It rained pretty hard last night and parts of the new adobe houses fell down. I am afraid if they had some of our old fashioned Prescott rains the town would melt away like "the baseless fabric of a vision," leaving nothing but a pile of mud behind.

I have had quite a pleasant time since I have been here. I found a very agreeable set of gentlemen, several of them old Prescotters located in this town for a time.

I don't know how long I shall stay here—probably long enough to rest myself. I shall then take to the road again.

Yours truly, J. T. ALSAR.

MORE CITIZENS COMING.—Not long ago a lot of hungry Fegoe Islanders cooked and eat some American seamen who were shipwrecked on one of the islands, and it coming "to the ears of our government," Bell-ringing Seward ordered a part of the South Pacific squadron to go forthwith and demand indemnity from the King, who, having no money to pay for the roast, cooked three of the islands as security. He is not yet able to pay the sum fixed upon, some \$50,000, and it is quite likely that we will have to take the islands, in which case the party in power will no doubt make citizens of the man-eating natives.

ROSS BROWNE, Chas. D. Poston, and several scientific gents sailed from San Francisco for China, August 3d. What a magnificent idea it is to send geologists, mineralogists and other scientists to China before our own country is half examined and reported upon?

CONGRESS has passed an act to extend the laws of the United States over Alaska.

The Chlorination Process in Mining.

A writer in the *Alta California*, gives the following information about the Chlorination process:

One of the chief features of the present condition of our mining industry is the multiplication of chlorination furnaces, bringing with it necessarily a demand for concentrating machinery, for chemical knowledge, and for the careful study of the characteristics of the ore in the leading mines. The principle of chlorination is that the metallic gold is dissolved by chlorine gas, while metallic oxides are left untouched. The ore is first roasted in a furnace of proper dimension, and then enclosed in a covered vat, into which chlorine gas is introduced until the gold is converted into chloride of gold; then the vat is opened and filled with water, which dissolves the gold as sugar is dissolved under similar circumstances. The solution is drawn off and the metallic gold precipitated from it by the introduction of the proto-sulphate of iron. The cost of the entire process does not exceed \$20 per ton, and in some localities, where wood is cheap and freights moderate, it may be worked as low as \$12 per ton, of sulphurates. The roasting is probably the most difficult step in the entire process, and yet every part must be as correctly performed. Plattner describes several kinds of roasting, as oxidizing roasting, reducing roasting, chloridizing roasting, evaporating roasting, etc.; of which oxidizing and chloridizing roasting are the only kinds we have to do with. Oxidizing roasting is either to form oxides free, and to drive off in form of vapor the residuum of sulphur, arsenic, etc., or if the substance roasted is a compound of metal and oxygen, to subject it to further oxidation. Air must be freely admitted. Oxidizing roasting is for the purpose of oxidation of such metals as are combined with sulphur or arsenic. Chloridizing roasting is the combination of metals with other bodies by aid of proper admixtures, when in a roasting process, having for its object the oxidizing and decomposition of sulphur and arsenic metals. Certain substances are added, as for instance salt or sulphate of iron. In roasting for chlorination we have first to oxidize the iron, and next, by introduction of salt, to chloridize certain other substances which vary with the locality from which the ore is obtained, usually either lead, magnesia, or alumina, or all of these. When this is rightly done we have usually formed either oxides or oxychlorides of all the base metals in the ore treated, and leaving gold as the only free metal, to absorb the chlorine gas. In order to be successful in roasting the ore, attention must be given to the construction of the furnace. If the arch over the hearth is too high, the ore will not be oxidized; so also if the flues are too large, or the damper is opened too wide, as the excess of cold air or draft has a tendency to cool the ore. Then again if the arch is too low, or flues too small, the air will fail to yield its oxygen to desulphurize and oxidize the ore. Cold air must always flow into the furnace through the workholes, but it must be in proper quantities, and the work-holes must be in proportion to the chimney flues. In our knowledge a furnace was erected, in which, by the mistake of the builder, the flues were constructed about one-half the size intended, and the error was not discovered until the furnace was heated up. The result was a failure. It was warm weather, and there were no sides to the furnace building, so that the prevailing winds had free circulation around and through the furnace—across the hearth. Under these circumstances we had a partial success, but the desulphurization was quite irregular, depending entirely upon the prevalence of strong winds. Chlorination in the furnace was almost impossible. Even the hottest fire would avail nothing, for it is not a hot fire which is required, but heat combined with a current of air.

Sometimes the absence of draft into the furnace is evidenced by the appearance of yellow sulphur on the rake handles. This is an extreme case; a more delicate test is the fact that the gold is discolored when examined by washing a small portion of ore in a Wedgewood mortar. It is not impossible to work every kind of demipyrates, but some ores require a different treatment from others. The most simple ores are those pyrites which are perfectly free from lead or alkaline earths. All alkaline earths, such as magnesia or alumina, which are usually found in talc and serpentine, create more difficulty in chlorination, because they require the use of salt in roasting. Talc and serpentine frequently occur in the ores as bedrock, and in strata next to the seams. When salt is required to be used in roasting, it must be used in proper quantity, or it is of no avail; and it must not be introduced before the proper time, or else, then, also, it is of no use.

"MINARGENT."—THE NEW SUBSTITUTE FOR SILVER.—"Minargent," the new substitute for silver, recently invented in Paris, possesses, according to the *London Mining Journal*, nine-tenths of the whiteness, malleability, ductility, tenacity, sonorosity, and density of silver, while it has a superior metallic lustre, wears better, is less liable to be acted on by the emanations of sulphuretted hydrogen, and is less fusible than silver. "Minargent" may be used for all purposes to which silver or other white metals or alloys are applicable. It is composed of one thousand parts of pure copper, seven hundred parts of pure nickel, fifty parts of pure tungsten, and ten parts of pure aluminum. The inventors do not, however limit themselves to the exact proportions given. The novel features of the "minargent" consist in the introduction in the alloy of pure tungsten and pure aluminum, and also the considerable proportion of nickel which they have succeeded in alloying with the aluminum. The metal is formed into ingots, and moulded in sand in the ordinary way.

Copper Mining on the Rhine.

THE WET PROCESS FOR POOR ORES.

The poor sulphides and the poor oxides, only, are worked by the wet or acid processes, the richer ores are all smelted by the old process. First, the poor sulphides, from $\frac{1}{4}$ to $\frac{3}{4}$ per cent., are roasted in a cupola furnace, about ten by three feet, charged with alternate layers of ore and fuel, and when drawn from the bottom and freed from sulphur are crushed, thrown into a masonwork basin, about twenty feet long by five feet deep, having a false bottom of horizontal layers of basalt, supported by basalt pillars, about one foot high. Blende, slightly roasted and crushed, is placed on the hearth of a retort furnace, and raised to a high heat; air is forced into the retort, to furnish oxygen to convert the sulphur in the blende into sulphurous acid gas; this, passing through the chimney, enters the vats beneath the crushed ore, mixed on its way with steam from a boiler, and passing through the apparatus between the horizontal basalt, penetrates the mass of crushed ore, and coming in contact with the oxides of copper and other metals formed from the sulphides by roasting, the oxygen is absorbed and soluble sulphates are produced, and fall in solution to the bottom of the vats. From this the fluid is pumped while hot into wooden tanks built firmly in clay, containing scrap and cast iron, and the copper precipitated as cement copper, containing 34 to 40 per cent. of metal, the iron going into solution in its stead. The zinc blende left in the retorts is utilized; the liquor remaining is concentrated by being passed into shallow receivers, and crystallized sulphate of iron (coppers) obtained. The mother liquor has a still further use.

The poor oxides, principally malachite or blue carbonate, which look so rich, and so often deceive, contain only on an average one to two per cent. of copper, which is extracted by muriatic acid. The ores are broken, placed in large vats, and weak muriatic acid poured over the mineral, which is allowed to remain subject to its action ten days. The carbonates are converted into chlorides, and precipitated as before described. The minerals in Prussia are the exclusive property of the Crown; the royalty is two per cent. on the produce. The responsible officers of the State report periodically on the mines; the report is public property. Frauds are thus avoided in statements affecting working prospects and in returns,—advantages which cannot be over estimated by foreign and distant shareholders—indeed, by all interested in mining industry.

"MADAME," said a polite traveler to an eccentric old lady, "If I see fit to help myself to this milk is there any impropriety in it?" "I don't know what you mean, but if you mean to insinuate that there is anything nasty in that milk, I'll give you to understand that you've struck the wrong house. There ain't the first here in it, for as soon as Dorothy told me the cat was drowned in the milk, I went and strained it right over!"

AN EX-GOVERNOR of Ohio, noted as an advocate of total abstinence, once had his sympathies aroused by an unfortunate inebriate who had buried three wives. "The Lord has indeed deeply afflicted you," said the Governor. The mourner, sobbing, replied: "Y-yes, he has," and pausing a moment and wiping his nose, continued, "but I don't think the Lord got much ahead of me, for as fast as he took one I took another."

A DELICATE SYNONYM.—A modest young lady, living in the West, recently nurtured a repugnance for the word limbs: said it was vulgar, and feared that she might some day have to use it, wrote to an editorial friend, requesting him to mention a more delicate synonym. Imagine her consternation upon receiving the laconic reply, "Legs."

"CONDEMN NO MAN," says John Wesley, "for not thinking as you think. Let every one enjoy the free liberty of thinking for himself. Let every man use his own judgment, since every man must give an account of himself to God. Abhor every reproach, in any kind of degree, to the spirit of persecution. If you cannot persuade a man into the truth, never attempt to force him into it. If love will not compel him to come, leave him to God, the Judge of all."

A CURE FOR SICK HEADACHE.—Take half a drachm of aromatic spirits ammonia, in a little water; at the same time apply cloths wet in solution of muriate of ammonia (one ounce of muriate of ammonia in nine ounces of water, and one ounce of alcohol) to the forehead.

GARDENING FOR LADIES.—Make up your beds early in the morning; see buttons on your husband's shirts; do not rake up any grievances; protect the young and tender branches of your family; plant a smile of good temper in your face, and carefully root out all angry feelings—and expect a good crop of happiness.

A FELLOW, on being asked to write a testimonial on a patent clothes-wringer, produced the following: "I am immensely pleased with it. I bought a load of wood which proved to be green and unfit to burn. I run the whole load through your clothes-wringer, and I have used the wood for kindling ever since."

FLOPPING.—If we are to believe our Democratic exchanges, a great many ex-soldiers who have heretofore acted with the Radical party, are leaving them and affiliating with the Democracy. We welcome these honest sons of Mars back to the true fold.

THE Abolitionists used to say of the Constitution that "it was a league with hell and a covenant with the devil." We think the "Reconstruction Acts and Negro Constitutions of the South" are contracts between Congress, the nigger, the carpet-bagger and the Old Scratch, to turn that once happy and prosperous section into a hell for white men, but believe that God and the Democracy will overcome Satan and hisimps.

RADICALISM has about broken the backbone of right loyal Tennessee. She squirms under her load of debt, and her mongrel Legislature has declared her insolvent. Another fruit of the war that might have been avoided had not Republican M. C's believed that the country needed a little blood-letting.

THE Governor of Lower California insists upon American miners paying an export duty of 8½ instead of 2½ per cent. paid by them heretofore. They say they will see him in Tophet first.

EIGHT millions of dollars is an ungodly sum for the Post Office Department to spend, over and above receipts, during the past year. Yet the telegraph informs us the forthcoming annual statement will show a deficit of this sum. No wonder the people want a change of rulers.

THE California Republican Electoral Ticket is composed of the following-named gentlemen: O. H. La Grange, of Alameda; John B. Felton, of San Francisco; James G. Hoffman, of Santa Barbara; Alfred Reddington, of Sacramento; Charles Westmoreland, of Humboldt. Alternate electors—G. W. Tyler, of San Francisco; Walter Van Dyke, of San Francisco; Louis Schloss, of San Francisco; C. A. Tweed, of Placer; J. H. McNabb, of Sonoma.

By a royal order just promulgated in Havana, newspapers are prohibited from reproducing "leaders" and original articles which have appeared in another paper, unless they first obtain the consent of the said paper.

The enforcement of such an order in Arizona would settle the Tucson *Arizonian*.

THE Iron Manufacturers in Massachusetts are making money. The Taunton papers announce that two companies in that city have just declared dividends of 20 per cent. each.—*Exchange*.

And yet they ask for more protection, and would get it too, were it not that it would injure Radicalism in the West.

UTAH ELECTION.—Ere this, the citizens of Utah have held their annual election. Mr. Hooper, the present Delegate in Congress from Utah is, most certainly, re-elected. The *News* says there was no opposition to his nomination.

HORSE SHOW.—Denver, Colorado, was, at latest accounts, excited over the "Horse Fair" being held there. Goldrick publishes his *Herald*, daily, and it is full of horse-talk.

OUR poet, Longfellow, who is now in England, is kindly spoken of by our trans-Atlantic cousins. Indeed they act towards him as though they admired him and his productions.

THE *Bulletin* publishes a synopsis of the new tax bill, which according to it, fills fourteen columns of the *New York Times*. The synopsis is devoted to "whisky and tobacco," and fills two and one-half columns of the *Bulletin*.

WE learn from the Rocky Mountain *Herald*, that Governor Hunt, of Colorado, and Col. Greenwood, are exploring for a pass for Eastern Division Railroad, in the South Park country.

FREIGHT and passenger trains of the Union Pacific Railroad Company are now running to Brownsville, 100 miles west of Laramie City. So we learn from the *Frontier Index*.

In San Francisco, recently, a Mrs. Barry fell from the second story of a brick building to the pavement, a distance of 20 feet, without sustaining much injury.

SEIGEL is opposed to the election of Grant. He says Grant is not fitted for the place. Neither is the place fitted for Grant.

THE *Examiner* and *Call*, of San Francisco, pronounce Burlingame's Chinese treaty abominable, and we think so too, after a perusal of a few of its articles. The Chinese want every privilege enjoyed by Americans, when they come here, but do not propose to reciprocate. The pig-tailed rat-eaters deserve a drubbing for their presumption.

BUSINESS is said to be very dull in Frisco. The *Call* says the "city is too large for the country." Scatter out, then, and build up the country.

He who puts a bad construction on a good act reveals his own wickedness of heart.